



per-view programs, but you'll have to order them the old-fashioned way — by calling customer service instead of simply pushing a few buttons on your remote control.

You also won't get the interactive program guide from your cable provider, but don't despair, Many CableCARD-ready sets have TV Guide On Screen, a free interactive service that lists all your cable channels and doesn't need a phone connection. A number of companies are working on a two-way version of CableCARD, but it's not expected to be available for at least a couple of years.

Most cable companies charge less for CableCARD than for their high-def cable boxes, and all major providers currently require a service call to have a CableCARD installed and activated. As you can see from the "CableCARD Fares" chart at the right, fees vary between \$19.95 and \$60.

Getting Started

To see how well CableCARD works, I called my local cable company, Cablevision, and arranged to have a card installed in a Panasonic TH-37PD25 enhanced-definition plasma TV, one of the first Cable-CARD sets on the market.

Lucky me, I was the first Cablevision subscriber in my area to order CableCARD, so they sent the company's two top installers. I watched as they inserted the card into the back of my TV — as easy as sliding a cartridge into a Gameboy. Then they plugged the cable from the wall into antenna jack A on the back of the TV and screwed the over-the-air antenna connector into the B jack. The TV's tuner decodes over-the-air digital and analog signals as well as digital cable signals that are decrypted by the CableCARD.

After everything was hooked up and the card was in the slot, a unique "Host ID" number appeared onscreen, Another ID number is printed on the card. One of the installers called the cable company to report the two numbers. A minute later, HBO was onscreen, and I was surfing a channel lineup identical to what I got through the set-top box.

Performance Lowdown

Putting the CableCARD through its paces, I timed a channel change using the up/down control on the TV's remote. (You can also use the numeric keypad for direct channel selection.) It took 2 to 3 seconds to get picture and sound for both standard- and high-definition digital cable channels, but that was no more than with the Scientific Atlanta 4200 HD cable box. I left the box connected to the TV so I could compare the picture quality on standard-def channels using CableCARD with that delivered by the component-video output of the Scientific Atlanta box. The all-digital CableCARD picture was clearer. High-def programs downconverted to enhanced definition. meaning 480p (progressive-scan) format,

also looked great through either the Cable-CARD or the box.

One nice side benefit of CableCARD is that it freed up the TV's single HDMI (High Definition Multimedia Interface) input for other gear — like a DVD player equipped with an HDMI or DVI (Digital Visual Interface) output. I didn't have such a player on hand, so I used an adapter to connect the cable box's DVI output to the TV's HDMI input and conducted another informal comparison. The CableCARD image was again slightly clearer than the image from the box.

The Bottom Line

CableCARD delivers on its promise. It lets you use your TV's remote control for all cable and over-the-air programs, it frees up an input that would otherwise be connected to a cable box, it can provide excellent picture quality, and it may even save you a little money. Unless you just can't live without video on demand, CableCARD is an option well worth considering, but you'll have to request it from your cable company. And don't let 'em talk you out of it!

CableCARD Fares

A II of the ten biggest cable companies require a service call to deliver and activate a CableCARD. According to several representatives I spoke with, this anti-do-it-yourself policy not only ensures that you really have a CardCARD-ready TV and that the card is properly activated, but it also gives them two more chances (on the phone when you order the card and during the service call) to dissuade you from choosing a Cable-

CARD in favor of renting a (usually) higher-cost two-way cable box that enables video on demand and pushbutton pay per view.

Here are the prices (as of late July) that these companies are charging for monthly CableCARD rental and installation. Installation charges are based on a subscriber's already having digital cable service. New wiring for an upgrade from analog service may cost more. — G.M.

Cable provider (in order of size)	Monthly rental (range indicates variations between areas)		Installation (range indicates variations
	CableCARD	High-def cable box	between areas)
Comcast	\$5 to \$7	\$5 to \$7	\$25 to \$40
Time Warner	\$1.75	\$6.97 in New York City; may vary elsewhere	\$25 in New York City, may vary elsewhere
Charter	\$1.50	\$3	\$25
Cox	\$2	\$6.99 to \$10	\$30 to \$60
Adelphia	\$1,75	\$7.95 to \$12.95	\$25
Cablevision	\$1.25	\$4.84	\$38.95
Brighthouse	\$4 to \$5	\$8 to \$10	\$35 to \$45
Mediacom	\$1.99	\$7.50	\$25 to \$45
Insight	\$1.99	\$7.95	\$19.95
CableOne	\$4.95	\$14.95	no charge for existing customer; \$30 for new